

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

MMB Docket No. **1671-0299**

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Confirmation No.: **7432**

Application of: **Bihary et al.**

Group Art Unit: **3775**

Serial No. **10/814,557**

Examiner: **Michael T. Shaper**

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For: **Suction Inserter**

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APPEAL BRIEF

Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the rejection of the claims 1-11 and 20-30 of the above-identified patent application. These claims were indicated as rejected in an Office Action dated August 5, 2010. The \$540.00 fee required under 37 CFR § 41.20(b) (2) has been previously submitted. Also, please provide any

extensions of time that may be necessary and charge any fees that may be due to Account No. 13-0014, but not to include any payment of issue fees.

(1) REAL PARTY IN INTEREST

DePuy Products, Inc. of Warsaw, Indiana is the assignee of this patent application, and the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this patent application (serial no. 10/814,557).

(3) STATUS OF CLAIMS

Claims 1-11 and 20-30 are pending in the application.

Claims 12-29 are canceled.

Claims 1-11 and 20-30 are rejected.

Claims 1-11 and 20-30 are being appealed, and are shown in the Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

Appellants have not filed any amendment after receipt of the August 5, 2010 Office Action (the "Office Action").

(5) SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1

A handheld instrument for insertion of an acetabular liner into an acetabular cup (See, e.g., Appellants' specification at page 7, lines 19-21 and reference number 20 of FIG. 5) comprising:

a shaft (See, e.g., Appellants' specification at page 7, lines 21-22 and reference number 22 of FIG. 5) having an internal channel therethrough (See, e.g., Appellants' specification at page 8, lines 27-28 and reference number 46 of FIG. 8) and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe (See, e.g., Appellants' specification at page 9, lines 7-9 and FIG. 5);

a bulb syringe sealingly engaged with the first end portion of the shaft and operably connected to the internal channel of the shaft (See, e.g., Appellants' specification at page 9, lines 7-9, 21-24 and FIG. 5); and

a head portion (See, e.g., Appellants' specification at page 7, lines 22-23 and reference number 26 of FIG. 5) having a curvilinear outer perimeter configured to sealingly engage the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner (See, e.g., Appellants' specification at page 8, lines 12-20 and reference number 26 of FIG. 5 and FIG. 8) and operably attached to the second end portion of the shaft (See, e.g., Appellants' specification at page 9, lines 4-6 and reference numbers 36 and 44 of FIG. 8) and having an inner channel therethrough operably connected to the internal channel of the shaft (See, e.g., Appellants' specification at page 8, lines 10-12, page 9 lines 21-24, and reference numbers 38 and 46 of FIG. 8).

Claim 20

Claim 20 is an independent claim. Claim 20 recites:

A kit providing a handheld instrument for insertion of an acetabular liner into an acetabular cup (See, e.g., Appellants' specification at page 7, lines 19-21, page 8, lines 4-9 and reference number 20 of FIG. 5) comprising:

a shaft (See, e.g., Appellants' specification at page 7, lines 21-22 and reference number 22 of FIG. 5) having an internal channel therethrough (See, e.g., Appellants' specification at page 8, lines 27-28 and reference number 46 of FIG. 8) and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe (See, e.g., Appellants' specification at page 9, lines 7-9 and FIG. 5), the second end configured to sealingly engage with a head; and

a plurality of heads (See, e.g., Appellants' specification at page 7, lines 22-23, page 8 lines 4-9 and reference number 26 of FIG. 5), each head having a curvilinear outer perimeter and configured to be operably attached to the second end portion of the shaft (See, e.g., Appellants' specification at page 9, lines 4-6 and reference numbers 36 and 44 of FIG. 8) such that an inner channel of the head connects to the internal channel of the shaft (See, e.g., Appellants' specification at page 8, lines 10-12, page 9 lines 21-24, and reference numbers 38 and 46 of FIG. 8), each of the plurality of heads having a curvilinear outer perimeter sized to at least partially fit within an acetabular liner and not substantially extend over a rim of the acetabular liner (See, e.g., Appellants' specification at page 8, lines 12-20 and reference number 26 of FIG. 5 and FIG. 8).

Claim 25

Claim 25 is an independent claim. Claim 25 recites:

An instrument for insertion of an acetabular liner into an acetabular cup (See, e.g., Appellants' specification at page 7, lines 19-21 and reference number 20 of FIG. 5) comprising:

a shaft (See, e.g., Appellants' specification at page 7, lines 21-22 and reference number 22 of FIG. 5) having an internal channel therethrough (See, e.g., Appellants' specification at page 8, lines 27-28 and reference number 46 of FIG. 8) and a first and a second end portion, the first end portion configured to sealingly engage with a hand held vacuum producing device (See, e.g., Appellants' specification at page 9, lines 7-9 and FIG. 5); and

a head (See, e.g., Appellants' specification at page 7, lines 22-23 and reference number 26 of FIG. 5) having a curvilinear outer perimeter configured to abut a 360 degree portion of the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner (See, e.g., Appellants' specification at page 8, lines 12-20 and reference number 26 of FIG. 5 and FIG. 8) and operably attached to the second end portion of the shaft (See, e.g., Appellants' specification at page 9, lines 4-6 and reference numbers 36 and 44 of FIG. 8) and having an inner channel therethrough operably connected to the internal channel of the shaft (See, e.g., Appellants' specification at page 8, lines 10-12, page 9 lines 21-24, and reference numbers 38 and 46 of FIG. 8).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 20, 22, and 25-28 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent Application No. 2005/0149043 of Parry et al. (hereinafter “Parry”).

Claims 1-11, 20-22, and 25-30 stand rejected under 35 USC §103(a) as being obvious over Parry in view of U.S. Patent No. 3,859,992 of Amstutz (hereinafter “Amstutz”) in further view of U.S. Patent No. 4,050,311 of Leach (hereinafter “Leach”).

Claims 23-24 stand rejected under 35 USC §103(a) as being obvious over Parry in view of Amstutz in further view of Leach.

(7) ARGUMENT

Claims 20, 22, and 25-28 are not Anticipated

Claims 20, 22, and 25-28 stand rejected under 35 USC §102(e) as being anticipated by Parry. Parry does not teach or disclose each element of the claims. Therefore, the rejections should be reversed.

Discussion re: Patentability of Claim 20

1. Claim 20

Claim 20 recites the following:

A kit providing a handheld instrument for insertion of an acetabular liner into an acetabular cup comprising:

a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe, the second end configured to sealingly engage with a head; and

a plurality of heads, each head having a curvilinear outer perimeter and configured to be operably attached to the second end portion of the shaft such that an inner channel of the head connects to the internal channel of the shaft, each of the plurality of heads having a curvilinear outer perimeter sized to at least partially fit within an acetabular liner and not substantially extend over a rim of the acetabular liner.

Accordingly, claim 20 recites a kit with a plurality of heads configured to fit within an acetabular liner without substantially extending over the rim of the liner, and a shaft configured to sealingly engage with a bulb syringe.

2. An Acetabular Cup is Not an Acetabular Liner

The Examiner rejected claim 20 alleging that Parry discloses head portions 100 that are configured to fit within an acetabular liner. (Office Action at page 5). The Examiner has mischaracterized Parry.

Specifically, Parry uses the reference number 100 to identify an alternative embodiment of an “engaging head”. (Parry at paragraph 60). The embodiments of FIGS. 5 and 6 are alternative to the embodiment of FIG. 5, which is identified as a device used to engage an “*acetabular shell 62*.” (Parry at paragraph 59, emphasis added). An acetabular *shell* is not the same as an acetabular *cup*. This difference is recognized by Parry as the two are distinguished at paragraph 6. One of ordinary skill in the art would not confuse an acetabular cup with an acetabular shell. Thus, the Examiner has failed to identify a plurality of heads in the prior art that are configured to fit within an acetabular liner as required by claim 20.

The Examiner argues that even though the engaging head 100 is not in fact disclosed as being configured to fit within an acetabular liner, the physical structure of the engaging head 100 “is fully capable of engaging a liner.” (Office Action at page 2). Claim 20 further requires, however, that the heads be configured to fit within an acetabular liner *without substantially extending over the rim of the liner*. As clearly

depicted in FIG. 5 of Parry, the surface 50 of the engaging head 100 extends *completely* over the rim of the acetabular shell 62.

The Examiner attempts to downplay the structural differences between the engaging head 100 of Parry and the head of claim 20 by arguing that “the ‘acetabular liner’ is not positively claimed and thus asserts that the head could potentially not substantially extend over a rim of a hypothetical liner.” (Office Action at page 2, emphasis in original). To the extent that the Examiner can be understood, the theory appears to be that since the structural limitation of claim 20 is recited by reference to a component (the liner) that is not positively recited, there is no actual structural limitation. It is well established, however, that claim limitations can in fact be described by the manner in which they interact with components that are not positively recited in the claims. See, e.g., *Orthokinetics Inc. v. Travel Chairs Inc.*, 1 USPQ 2d 1081, 1088 (Fed. Cir. 1986) (wherein a claim limitation on a chair made by reference to fitting between seats of an automobile was held to be definite).

Alternatively, the Examiner may have been attempting to argue that the engaging head 100 of Parry inherently meets the claim limitation because a liner could possibly be constructed that allowed the engaging head 100 to meet the claim limitation. MPEP § 2112 requires the Examiner to provide rationale or evidence tending to show inherency. Moreover, “[t]o establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may

result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

FIG. 5 depicts the surface 50 of the engaging head 100 extending *completely* over the rim of the acetabular shell 62. Thus, the surface 50 would also extend completely over a liner having the same inner diameter as the acetabular shell 62 since the wall thickness of a liner is less than the wall thickness of a cup. Accordingly, FIG. 5 proves that the engaging head 100 does not inherently disclose the limitations of claim 20. Consequently, Parry does not anticipate claim 20 and the Board of Appeals is respectfully requested to reverse the rejection of claim 20.

3. Parry's Device is Not Configured as Required by Claim 20

The Examiner further rejected claim 20 alleging that that device of Parry was “capable of sealingly engaging with a bulb syringe or with a hand held vacuum producing device.” (Office Action at page 3). The Examiner failed, however, to identify any *structure* of the Parry device which enabled such sealing engagement. Moreover, the Examiner has failed to identify any express teaching in Parry of connecting a bulb syringe to the impactor 10. Thus, the Examiner alleges that the structure of Parry is *inherently* configured to sealingly engage a bulb syringe.

As noted above, “[t]o establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re*

Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). Accordingly, for Parry to inherently disclose that the impactor 10 is configured to sealingly engage with a bulb syringe, the configuration of the impactor must necessarily sealingly engage with a bulb syringe.

Of course, Parry specifically states that a disadvantage of prior art devices is the need for an “external suction source.” (Parry at paragraph 11). Parry claims that this disadvantage of the prior art is “addressed by the present disclosure.” Accordingly, the device of Parry is specifically configured in such a manner that nothing needs to be attached to the device to provide a vacuum. Thus, while the configuration of Parry may by happenstance allow for sealing engagement with some unidentified vacuum source, such happenstance does not establish inherency.

Therefore, because the impactor 10 does not inherently seal with a bulb syringe, the impactor 10 is not arranged in the manner required by claim 20. Consequently, Parry does not anticipate claim 20 and the Board of Appeals is respectfully requested to reverse the rejection of claim 20.

4. Conclusion

Anticipation of a claim under 35 U.S.C. § 102 is proper only if the prior art reference discloses each and every element of the claim. Since Parry does not disclose each and every element of Appellants’ claim 20 for any of the reasons set forth above, Parry does not anticipate Appellants’ claim 20 and the Board of Appeals is respectfully requested to reverse the rejection of claim 20.

Discussion re: Patentability of Claim 22

Claim 22 depends directly from claim 20 and incorporates all the limitations of claim 20. Claim 22 was rejected based upon the same prior art discussed above with respect to claim 20. Accordingly, claim 22 is patentable over the prior art for at least the same reasons as those set forth above in connection with claim 20 and the Board of Appeals is respectfully requested to reverse the rejection of claim 20.

Discussion Re: Patentability of Claim 25

1. Claim 25

Claim 25 recites the following:

An instrument for insertion of an acetabular liner into an acetabular cup comprising:
 a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a hand held vacuum producing device; and
 a head having a curvilinear outer perimeter configured to abut a 360 degree portion of the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner and operably attached to the second end portion of the shaft and having an inner channel therethrough operably connected to the internal channel of the shaft.

Accordingly, claim 25 recites an instrument with a head configured to fit within an acetabular liner without substantially extending over the rim of the liner and a shaft configured to sealingly engage with a hand held vacuum producing device.

2. Argument of Claim 20 Applies

The Examiner rejected claim 25 based upon the same prior art discussed above with respect to claim 20. (Office Action at page 3). Claim 25 differs from claim 20, for purposes of this discussion, in that claim 25 requires only a single head and further requires sealing engagement with a hand-held vacuum device. These distinctions do not

substantively alter the arguments presented above with respect to claim 20.

Accordingly, for the same reasons set forth above with respect to claim 20, claim 25 is patentable over Parry.

3. Conclusion

It is axiomatic that anticipation of a claim under 35 U.S.C. § 102 is proper only if the prior art reference discloses each and every element of the claim. Since Parry does not disclose each element of the Appellants' claim 25, for any or all of the foregoing reasons, Parry does not anticipate Appellants' claim 25. Accordingly, the Board of Appeals is respectfully requested to reverse the rejection of claim 25.

Discussion re: Patentability of Claims 26-28

Claims 26-28 depend, either directly or by way of one or more intermediate claims, from claim 25 and incorporate all the limitations of claim 25. Claims 26-28 were rejected based upon the same prior art discussed above with respect to claim 25. (Office Action at page 3). Accordingly, claims 26-28 are patentable over the prior art for at least the same reasons as those set forth above in connection with claim 25 and the Board of Appeals is respectfully requested to reverse the rejection of claims 26-28.

Claims 1-11, 20-22, and 25-30 are not Obvious

Claims 1-11, 20-22, and 25-30 stand rejected under 35 USC §103(a) as being obvious over Parry in view of Amstutz in further view of Leach. The proposed modification fails to arrive at the claimed invention and the Examiner has failed to clearly

articulate the reasons for the alleged obviousness of the invention. Therefore, the rejection should be reversed.

Discussion Re: Patentability of Claim 1 over Parry

1. Claim 1

Claim 1 recites the following:

A handheld instrument for insertion of an acetabular liner into an acetabular cup comprising:

a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe;

a bulb syringe sealingly engaged with the first end portion of the shaft and operably connected to the internal channel of the shaft; and

a head portion having a curvilinear outer perimeter configured to sealingly engage the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner and operably attached to the second end portion of the shaft and having an inner channel therethrough operably connected to the internal channel of the shaft.

Accordingly, claim 1 recites an instrument with a head configured to fit within an acetabular liner without substantially extending over the rim of the liner and a shaft configured to sealingly engage with a bulb syringe.

2. Argument of Claim 20 Applies

The Examiner rejected claim 1 based primarily upon the same prior art discussed above with respect to claim 20 with further reference to Leach and Amstutz for a bulb syringe and valves. (Office Action at pages 9 and 10). Claim 1 differs from claim 20 with respect to the head and shaft limitations, for purposes of this discussion, in that claim 1 requires only a single head. This distinction does not substantively alter the arguments presented above with respect to claim 20. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the

deficiencies of Parry regarding the shaft and head limitations of claim 1. Therefore, the proposed modification does not arrive at the invention of claim 1.

3. Reasons for Obviousness Have Not Been Clearly Articulated

The Examiner acknowledges that Parry fails to disclose a bulb syringe, but argues that one of ordinary skill in the art would modify the device of Parry to incorporate a bulb syringe “for the obvious reason of an easy and less complicated manners (sic) of vacuum production.” (Office Action at page 10). The device of Parry, however, is configured to *avoid* using any device such as the bulb syringe of Leach. (See, e.g., Parry at paragraph 11). Rather, the needed vacuum is established simply by placement of a finger over the port 42. (See, e.g., Parry at paragraph 64). The Examiner thus argues that one of ordinary skill in the art would *add more components* to the device of Parry, in order to have a “less complicated” device that provides the same function as the allegedly more complicated device that has less components. The Examiner has failed to explain how complicating the device of Parry makes the device of Parry less complicated. Moreover, the device of Leach is configured to generate pressure, not a vacuum. (See, e.g., Leach at column 3, lines 32-40).

MPEP 2142 notes that “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.” Because the Examiner has failed to provide a clear articulation explaining why complicating the device of Parry makes the device of Parry

less complicated, a *prima facie* case of obviousness has not been established with respect to claim 1.

4. Conclusion

For any or all of the foregoing reasons, the Appellants respectfully submit that claim 1 is not obvious over Parry in view of Amstutz and Leach. Accordingly, the Board of Appeals is respectfully requested to reverse the rejection of claim 1.

Discussion Re: Patentability of Claims 2-11

Claims 2-11 depend from claim 1 and include all of the limitations of claim 27. The Examiner rejected claims 2-11 based upon the same combination discussed above with respect to claim 1. Accordingly, for at least the same reasons set forth above with respect to claim 1, claims 2-11 are patentable over the combination of Parry, Amstutz, and Leach.

Discussion Re: Patentability of Claims 20-22

As discussed above with respect to the anticipation rejection of claim 20 based on Parry, Parry does not disclose each limitation of claim 20. The Examiner rejected claim 20 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe, limitations not present in claim 20. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 20. Therefore, claim 20 is patentable over the proposed combination.

Claim 21 depends from claim 20 and recites additional limitations. The Examiner rejected claim 21 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 20. Moreover, the Examiner has failed to clearly articulate reasons for obviousness as discussed above with respect to claim 1. Therefore, claim 21 is patentable over the proposed combination.

Claim 22 depends from claim 20 and recites additional limitations. The Examiner rejected claim 22 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe, limitations not present in claim 22. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 20. Therefore, claim 22 is patentable over the proposed combination.

Discussion Re: Patentability of Claims 25-30

As discussed above with respect to the anticipation rejection of claim 25 based on Parry, Parry does not disclose each limitation of claim 25. The Examiner rejected claim 25 based primarily on Parry with further reference to Amstutz and Leach for valves and a hand-held vacuum device in the form of a bulb syringe, limitations not present in claim 25. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 25. Therefore, claim 25 is patentable over the proposed combination.

Claims 26-28 depend from claim 25 and recite additional limitations. The Examiner rejected claims 26-28 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe, limitations not present in claims 26-28. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 25. Therefore, claims 26-28 are patentable over the proposed combination.

Claim 29 depends from claim 25 and further recites a shaft configured to sealingly fit with a syringe. The Examiner rejected claim 29 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 25. Moreover, the Examiner has failed to clearly articulate reasons for obviousness as discussed above with respect to claim 1. Therefore, claim 29 is patentable over the proposed combination.

Claim 30 depends from claim 25 and further recites a shaft configured to sealingly fit with a bulb syringe. The Examiner rejected claim 30 based primarily on Parry with further reference to Amstutz and Leach for valves and a bulb syringe. Accordingly, even if Parry is modified in the manner suggested by the Examiner, such modification fails to correct the deficiencies of Parry as discussed above with respect to the anticipation rejection of claim 25. Moreover, the Examiner has failed to clearly articulate reasons for obviousness as discussed above with respect to claim 1. Therefore, claim 30 is patentable over the proposed combination.

Claims 23-24 are not Obvious

Claims 23-24 stand rejected under 35 USC §103(a) as being obvious over Parry in view of Amstutz in further view of Leach. Claims 23-24 depend from claim 20 and include all of the limitations of claim 20. The Examiner rejected claims 23-24 based upon the same prior art discussed above with respect to claim 20. (Office Action at page 11). Accordingly, for the same reasons set forth above with respect to claim 20, claims 23-24 patentable over the combination of Parry, Amstutz, and Leach.

CONCLUSION

Claims 20, 22, and 25-28 are not anticipated by Parry, claims 1-11, 20-22, and 25-30 are not obvious over Parry in view of Amstutz in further view of Leach, and claims 23-24 are not obvious over Parry in view of Amstutz in further view of Leach. Accordingly, the Board of Appeals is respectfully requested to reverse the rejections of claims 1-11 and 20-30.

Respectfully submitted,
MAGINOT, MOORE & BECK LLP

/James D. Wood/

James D. Wood
Attorney for Appellants
Registration No. 43,285

January 4, 2011
Maginot, Moore & Beck LLP
Chase Tower
111 Monument Circle, Suite 3250
Indianapolis, Indiana 46204-5115
Telephone (317) 638-2922

(8) CLAIMS APPENDIX

Claim 1. A handheld instrument for insertion of an acetabular liner into an acetabular cup comprising:

- a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe;
- a bulb syringe sealingly engaged with the first end portion of the shaft and operably connected to the internal channel of the shaft; and
- a head portion having a curvilinear outer perimeter configured to sealingly engage the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner and operably attached to the second end portion of the shaft and having an inner channel therethrough operably connected to the internal channel of the shaft.

Claim 2. The instrument of claim 1, the head portion further comprising:

- a first o-ring circumscribing the curvilinear outer perimeter of the head portion and sized to sealingly fit between the curvilinear outer perimeter of the head portion and an acetabular liner.

Claim 3. The instrument of claim 2, the head portion further comprising:

- a second o-ring circumscribing the curvilinear outer perimeter of the head portion and adjacent the first o-ring, and
- a secondary inner channel having a first and a second end portion and operably connected at the first end portion to the internal channel and opening at the second end portion at the outer perimeter of the head portion between the first and second o-ring.

Claim 4. The instrument of claim 1 further comprising a valve, the valve operable to seal the internal channel such that air is not allowed to pass between the atmosphere and the internal channel through the valve.

Claim 5. The instrument of claim 1, further comprising:

a stop check valve having an inlet and an outlet, the inlet operably connected to the internal channel and the outlet operably connected to the atmosphere, such that when the stop check valve is in a non-stopped position, air from the atmosphere is not allowed to pass into the internal channel through the stop check valve but air from the internal channel is allowed to pass to the atmosphere through the stop check valve and such that when the stop check valve is in a stopped position, air from the internal channel is not allowed to pass into the atmosphere through the stop check valve; and

a valve movable between a first position and a second position and having an inlet and an outlet, the inlet operably connected to the atmosphere and the outlet operably connected to the bulb syringe, such that when the valve is in the first position, air is not allowed to pass between atmosphere and the internal channel, and when the valve is in the second position, air is allowed to pass between the atmosphere and the internal channel.

Claim 6. The instrument of claim 4, wherein the valve is a stop check valve.

Claim 7. The instrument of claim 5, wherein the stop check valve is located on the bulb syringe, such that air passing between the inner channel and the atmosphere through the stop check valve passes through the bulb syringe.

Claim 8. The instrument of claim 1, wherein the shaft is bent between the first end portion and the second end portion.

Claim 9. The instrument of claim 8, wherein the shaft comprises a bend of between about 20 and about 45 degrees between the first end portion and the second end portion.

Claim 10. The instrument of claim 9, wherein the shaft comprises a bend of about 30 degrees between the first end portion and the second end portion.

Claim 11. The instrument of claim 1, wherein the head portion comprises an internal chamber communicating with the inner channel, and wherein the second end portion of the shaft sealingly fits within the internal chamber.

Claim 20. A kit providing a handheld instrument for insertion of an acetabular liner into an acetabular cup comprising:

a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a bulb syringe, the second end configured to sealingly engage with a head; and

a plurality of heads, each head having a curvilinear outer perimeter and configured to be operably attached to the second end portion of the shaft such that an inner channel of the head connects to the internal channel of the shaft, each of the plurality of heads having a curvilinear outer perimeter sized to at least partially fit within an acetabular liner and not substantially extend over a rim of the acetabular liner.

Claim 21. The kit of claim 20, further comprising:

a bulb syringe configured to scalingly engage the first end portion of the shaft and operably connect to the internal channel of the shaft.

Claim 22. The kit of claim 20, wherein each of the plurality of heads has an outer perimeter of a size different than the size of each of the other plurality of heads.

Claim 23. The kit of claim 20, wherein the plurality of heads comprises a first head, a second head and a third head, the first head having a curvilinear outer perimeter sized to at least partially fit within a 26 mm diameter acetabular liner, the second head having a curvilinear outer perimeter sized to at least partially fit within a 28 mm diameter acetabular liner, and the third head having a curvilinear outer perimeter sized to at least partially fit within a 32 mm diameter acetabular liner.

Claim 24. The kit of claim 20, wherein the plurality of heads comprises:

a first head having a curvilinear outer perimeter sized to at least partially fit within a first acetabular liner having a first diameter; and

a second head having a curvilinear outer perimeter sized to at least partially fit within a second acetabular liner having a second diameter, the first diameter different from the second diameter, and wherein the first acetabular liner and the second acetabular liner have diameters of 26 mm, 28 mm, 32 mm, 36 mm or 38 mm.

Claim 25. An instrument for insertion of an acetabular liner into an acetabular cup comprising:

a shaft having an internal channel therethrough and a first and a second end portion, the first end portion configured to sealingly engage with a hand held vacuum producing device; and

a head having a curvilinear outer perimeter configured to abut a 360 degree portion of the inner surface of an acetabular liner and not substantially extend over a rim of the acetabular liner and operably attached to the second end portion of the shaft and having an inner channel therethrough operably connected to the internal channel of the shaft.

Claim 26. The instrument of claim 25, wherein the head is configured to sealingly fit within an acetabular liner.

Claim 27. The instrument of claim 25, the head comprising:

a first groove circumscribing the curvilinear outer perimeter of the head; and

a first o-ring located within the first groove and sized to sealingly fit between the curvilinear outer perimeter of the head and an acetabular liner.

Claim 28. The instrument of claim 27, the head further comprising:

a second groove circumscribing the curvilinear outer perimeter of the head and adjacent the first groove;

a second o-ring located within the second groove; and

a secondary inner channel having a first and a second end portion and operably connected at the first end portion to the internal channel and opening at the second end portion at the outer perimeter of the head between the first and second groove.

Claim 29. The instrument of claim 25 wherein the hand held vacuum producing device is a syringe.

Claim 30. The instrument of claim 27, wherein the syringe is a bulb syringe.

(9) EVIDENCE APPENDIX

None.

(10) RELATED PROCEEDINGS APPENDIX

None.